WO 03/095916 PCT/GB03/01743

9

CLAIMS:

- 1. A method of de-watering an article subjected to processing in which a liquid, such as water, collects on a surface of the article, which method comprises conveying the article past a suction device so that the said surface of the article passes adjacent to an inlet of the suction device, directing at least one jet of air at the said surface of the article as the said surface passes by the inlet of the suction device to displace liquid from the said surface of the article into the air adjacent to the inlet of the suction device, and operating the suction device to draw the liquid-containing air into the inlet of the suction device.
- 2. A method according to claim 1 comprising directing a jet of air at the said surface of the article through a nozzle positioned within the inlet of the suction device.
- 3. A method according to claim 2 comprising delivering compressed air to the nozzle from a source of compressed air through a compressed air pipe extending within the suction device.
- 4. A method according to any one of claims 1 to 3 comprising detecting the presence of an article adjacent to the inlet of the suction device and directing a pulse of air at the said surface of the article in response to the detection of the article.
- 5. A method according to claim 1 comprising directing a plurality of jets of air at the said surface of the article through a plurality of nozzles distributed around the periphery of the inlet of the suction device.

WO 03/095916 PCT/GB03/01743

10

- 6. A method according to claim 5 comprising supplying compressed air to the plurality of nozzles from a chamber of the suction device which is connected to a source of compressed air.
- 7. A method according to any preceding claim comprising passing the articles beneath the inlet opening of the suction device.
- 8. Apparatus for de-watering articles subjected to processing in which a liquid, such as water, collects on a surface of the article, which apparatus comprises a suction device having an inlet, means for conveying an article past the suction device so that the said surface of the article passes by the inlet of the suction device, and means for directing at least one jet of air at the said surface of the article as the surface passes by the inlet of the suction device to displace liquid from the said surface of the article into the air adjacent the inlet of the suction device.
- 9. Apparatus according to claim 8 wherein the means for directing the jet of air at the said surface of the article comprises a nozzle located in the inlet opening of the suction device.
- 10. Apparatus according to claim 9 wherein the nozzle is centrally located within the inlet opening of the suction device.
- 11. Apparatus according to claim 9 or 10 wherein the nozzle is connected to a source of compressed air by a compressed air pipe extending within the suction device.

- 12. Apparatus according to any one of claims 8 to 11 comprising means for detecting the presence of an article adjacent to the inlet of the suction device and means for directing a pulse of air at the said surface of the article in response to the detection of the article by the detecting means.
- 13. Apparatus according to claim 8 wherein the means for directing the jet of air at the said surface of the article comprises a plurality of nozzles distributed around the inlet of the suction device.
- 14. Apparatus according to claim 13 wherein the plurality of nozzles are equally spaced around the inlet of the suction device.
- 15. Apparatus according to claim 13 or 14 wherein the plurality of nozzles are mounted on the suction device and are supplied with pressurised air from a chamber of the suction device which is connected to a source of compressed air.
- 16. Apparatus according to any one of claims 8 to 15 wherein the suction device is a Coanda effect air moving device.
- 17. A method of de-watering articles substantially as hereinbefore described with reference to the accompanying drawings.
- 18. Apparatus for de-watering articles substantially as hereinbefore described with reference to the accompanying drawings.
- 19. Any novel feature or combination of features described herein.